

REMARKS

Claims 1-3 and 5-20 are currently pending in the application. Claims 1 and 12 are independent claims. By this amendment, claims 1 and 12 have been amended to more clearly define the invention to more clearly overcome the rejections in the outstanding Office Action by incorporating the features of claims 21 and 22 therein respectively. Accordingly, claims 21 and 22 have been canceled. No new matter has been added. Reconsideration and withdrawal of all pending rejections in view of the above amendments and following remarks is respectfully requested.

Allowable Subject Matter

Applicants appreciate the Examiner's indication that claim 8 is allowable.

35 U.S.C. § 103 Rejection

Claims 1-3, 5, 6, 9-15, and 19-22 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Japanese patent publication No. 08-222371 to Shimo et al. ("Shimo et al."). This rejection is respectfully traversed.

In this case, claims 1 and 12 as amended recite, *inter alia*, that the laser beam is a pulse laser with a pulse duration of 20 ns or less and wherein the laser beam comprises a power density of about 500 mJ/cm².

On the contrary, Shimo et al. discloses a power density of 10-220 mJ/cm² in paragraphs [0009] and [0018]. Additionally, in a particular aspect, Shimo et al. discloses 180 mJ/cm² in paragraph [0023]. The Examiner asserts that Shimo et al. discloses hundreds mJ/cm² in her statements to support the motivation to modify. However, from the disclosure, Shimo et al. merely considers hundreds mJ/cm² to be up to be 220 mJ/cm². No where does Shimo et al. disclose or even contemplate a power density of 500 mJ/cm² which is more than twice every

specific expressed power density. In this regard, Applicants disclose that an unexpected more efficient ablation of the electrode layer can be achieved with a higher power and shorter duration laser pulse (see last paragraph of p. 9 of the specification).

In other words, Shimo et al. does disclose up to 220 mJ/cm² but does not provide any disclosure, teachings, or any other motivation to double the power density to that of the claimed invention. In this regard, there is no suggestion or disclosure in Shimo et al. separately or in any proper combination with the applied prior art that render obvious the features of the claimed invention.

Moreover Shimo et al. does not disclose the specific pulse width. To the contrary, Shimo et al. discloses a range of pulse widths from 100 or less microseconds to 100 nanoseconds or less.

Thus, even if Shimo et al. was modified in the manner asserted by the Examiner, it would fail to disclose the invention as claimed. Instead, the resultant combination would not effectively ablate the electrode because Shimo et al. operates at a much lower power of 10-220 mJ/cm² as disclosed in paragraph [0009].

A rejection under 35 U.S.C. § 103 based on obviousness cannot be properly maintained without a proper disclosure of each and every element and the motivation to modify the elements. Here the applied references fail to provide any motivation that would lead one of ordinary skill in the art to modify the power density and pulse width in a manner set forth in the Official Action. Accordingly, the Examiner is respectfully requested to withdraw the rejection under 35 U.S.C. § 103.

Claims 7 is rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent no. 6,719,916 to Dubowski ("Dubowski"). This rejection is respectfully traversed.

Similarly Dubowski does not disclose the recited pulse range recited in independent claims 1 and 12. Because the applied reference of Dubowski fails to disclose each and every

element recited in the claims, as noted above, in independent claims 1 and 12, the Examiner is respectfully requested to withdraw the rejection under 35 U.S.C. § 103 as being unpatentable over Dubowski.

Claims 16-18 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Shimo et al. in view of U.S. Patent No. 6,576,867 to Lu et al. This rejection is respectfully traversed.

With regard to dependent claims 16-18, Applicants assert that these claims are allowable on their own merit and at least because they depend on independent claim 12, which Applicants submit has been shown to be allowable.

Moreover, the combination of Shimo et al. and Lu et al. fail to rectify the shortcomings of teachings of Shimo et al. noted above.

Accordingly, Applicants respectfully request that the rejection over claims 1-3 and 5-20 be withdrawn.

Since none of the other prior art of record discloses or suggests the claimed subject matter, Applicant respectfully submits that claims 1-3 and 5-20 are allowable.

Pursuant to MPEP §714.13, Applicants contend that the entry of the present amendment amending claims 1 and 12 to have the subject matter of claims 21 and 22 is appropriate because such an amendment does not raise new issues. Moreover, the proposed amended claims avoid the rejections set forth in the last Office Action, resulting in the application being placed in condition for allowance, or, alternatively, the revised claims place the application in better condition for purposes of appeal. Furthermore, the revised claims do not present any new issues that would require any further consideration and/or search by the Examiner, and the amendment does not present any additional claims without canceling a like number of pending claims. Accordingly, entry of the present amendment is respectfully requested.

CONCLUSIONS

In view of the foregoing amendments and remarks, Applicants submit that all of the rejections have been overcome, and that the claims are patentably distinct from the prior art of record and in condition for allowance. The Examiner is respectfully requested to pass the above application to issue, and to contact the undersigned at the telephone number listed below, if needed. Applicants hereby make a written conditional petition for extension of time, if required. Please charge any deficiencies in fees and credit any overpayment of fees to **Deposit Account No. 50-3698 (H.C. Park & Associates, PLC)**.

Respectfully Submitted,



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